The new Cornell SP slurry series was tested in both the lab and the field. Cornell knew the pump was tough, surviving 1500 hours of lab testing, where the volute on the 4 inch Slurry Pump was polished and dented in more than 200 locations by a stream of 30 percent silica sand changed every 50 hours to keep the sand edges coarse. The amazing thing about that lab test was that the patented Cycloseal® mechanical seal still had primer from the original installation on it when the volute, impeller, and expeller all showed significant wear.

Another test of the slurry pump came from a pumping trial at a mining site. The 3 inch white iron slurry pump was moving heavy solids fed from a dredge head off a bottom of the pond. The pump worked continuously for three months without a breakdown, seal wear, or decrease in performance.

The pump was returned to Cornell to inspect. As with the pump in the test lab, the volute and impeller showed obvious signs of wear. Debris such as 3 inch long stick, numerous rocks, and metal band ends were pulled from the volute and piping of the pump. However, the Cycoseal® was still as pristine as when it went out of the factory. After three months of use in the harsh Canadian climate, it too still had the primer paint on the volute.

The president of the test company commented on the Cycoseal® system “It’s huge,” he said. “Not having to do a water flush or replace packing materials constantly saves time and money, and the Cornell pump performs runs like a top. Game changer can be overused...but in this case, Cycoseal® really does change the whole game for slurry pumping.”

Cycloseal® technology has been used on Cornell pumps in other industries for years, and the innovation is changing mine dewatering and slurry pumping. The Cycloseal® back plate removes solids and abrasive materials from the seal area while purging air and gas pockets, extending seal life and eliminating need for venting or water flush. Seals don’t leak and last up to three times as long as standard seals.

Cycloseal® is available on almost every pump Cornell produces.